

# Introduction to CFD pre- & post-processing with ANSA/META

## webinar sessions

### Session 1:

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- Introduction to ANSA CFD layout and basics
- ANSA Topo menu and Draw Modes (ENT, PID etc.)
- How to generate geometry parts (surfaces, points etc.)
- Surface manipulation and modifications
- Preparation of a watertight geometry
- Treatment of problematic areas
- How to check geometry for errors with Checks Manager
- Detect and manage geometry features with the Feature Manager (sharp edges, trailing/leading edges etc)
- Using the Quality Criteria tab

### Session 2:

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- Batch Meshing setup for surface mesh
- Size Boxes and Size Field for local mesh refinement
- Checking the surface mesh with Checks Manager and quality improvement
- Layers generation (important options and settings)
- Volume Mesh algorithms (Tetra, HexaInterior etc.)
- Generate Layers and Volume Mesh with Batch Mesh manager
- Checking and fixing volume mesh quality

### Session 3:

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- Basic use of META How to load a model and results.
- Labels and Fringe options.
- The use of User calculations.
- The use of Cut Planes and CFD Post toolbar.
- Generation of streamlines.
- Generation of Isofunctions.



## **Supporting material:**

### **Tutorials**

- The Basics
- Meshing for External Aerodynamics

### **Videos**

- [CFD geometry preparation of a Formula-type car](#)
- [Advanced CFD meshing of a Formula-type car and OpenFOAM simulation](#)
- [Webinar on META for CFD](#)